face acquires by the absorption of the liquid into the pores of the paper. He also explains a method by which the impression thus made, and which is only transient, can be rendered permanent.

This method of observation is then applied to the further examination of various points connected with the distribution of the thermic rays, the transcalescence of particular media, the polarization of radiant heat (which is easily rendered sensible by this method), &c. The reality of more or less insulated spots of heat distributed at very nearly equal intervals along the axis of the spectrum (and of which the origin is *probably* to be sought in the flint glass prism used—but *possibly* in atmospheric absorption) is established. Of these spots, two of an oval form, are situated, the one nearly at, and the other some distance beyond the extreme red end of the spectrum, and are less distinctly insulated; two, perfectly round and well-insulated, at greater distances in the same direction; and one, very feeble and less satisfactorily made out, at no less a distance beyond the extreme red than 422 parts of a scale in which the whole extent of the Newtonian coloured spectrum occupies 539.

A paper was also read entitled, "Remarks on the Theory of the Dispersion of Light, as connected with Polarization;" by the Rev. Baden Powell, M.A., F.R.S., and Savilian Professor of Geometry, Oxford.

Since the publication of a former paper on the subject referred to, the author has been led to review the subject in connexion with the valuable illustrations given by Mr. Lubbock of the views of Fresnel; and points out, in the present supplement, in what manner the conclusions in that paper will be affected by these considerations.

A paper was also read, entitled, "Further Particulars of the Fall of the Cold Bokkeveld Meteorite;" by Thomas Maclear, Esq., F.R.S., in a letter to Sir John F. W. Herschel, Bart., K.H., V.P.R.S., &c. communicated by Sir John Herschel.

This communication, which is supplementary to the one already made to the Society by Mr. Maclear, contains reports, supported by affidavits, of the circumstances attending the fall of a meteoric mass in a valley near the Cape of Good Hope. The attention of the witnesses had been excited by a loud explosion which took place in the air, previous to the descent of the aerolite, and which was attended by a blue stream of smoke, extending from north to west. Some of the fragments which had been seen to fall, and which had penetrated into the earth, were picked up by the witnesses. One of them falling on grass caused it to smoke; and was too hot to admit of being touched. The mass which was sent to England by H.M.S. Scout, weighed, when first picked up, four pounds. The paper is accompanied by a map of the district, showing the course of the aerolite.

A paper was also read, entitled, "An account of the Shooting Stars of 1095 and 1243;" by Sir Francis Palgrave, K.H., F.R.S., &c.

The author gives citations from several chronicles of the middle ages, descriptive of the remarkable appearance of shooting stars which occurred on the 4th of April, 1095, on the testimony of independent witnesses both in France and England. One of them describes them as " falling like a shower of rain from heaven upon the earth :" and in another case, a bystander, having noted the spot where the aerolite fell, " cast water upon it, which was raised in steam, with a great noise of boiling." The Chronicle of Rheims describes the appearance as if all the stars in heaven were driven, like dust, before the wind. A distinct account of the shooting stars of July 26th, 1293, is given by Matthew Paris.

March 12, 1840.

The MARQUIS of NORTHAMPTON, President, in the Chair.

A paper was read, entitled " On certain variations of the mean height of the Barometer, mean temperature and depth of Rain, connected with the Lunar Phases, in the cycle of years from 1815 to 1823." By Luke Howard, Esq., F.R.S.

The table given in this paper contains the results of calculations relating to the objects specified in the title; cast into periods of six, seven, or eight days, so as to bring the day of the lunar phase belonging to it in the middle of the time. The observations were all made in the neighbourhood of London. It appears from them that in the period of the last quarter of the moon the barometer is highest, the temperature a little above the mean, and the depth of rain the smallest. In the period of the new moon, both the barometer and temperature are considerably depressed, and the rain increased in quantity. The influence of the first quarter shows itself by the further depression of the barometer; but the temperature rises almost to the point from which it had fallen, and the rain still increases, but not in an equal ratio. Lastly, the full moon again reduces the temperature; while the barometer attains its maximum mean height, and the quantity of rain is the greatest. Thus it appears, that during this lunar cycle, the approach of the last quarter is the signal for the clearing up of the air, and the return of sunshine.

A paper was also read, entitled " On the theory of the dark bands formed in the solar spectrum from partial interception by transparent plates." By the Rev. Baden Powell, M.A., F.R.S., Savilian Professor of Geometry in the University of Oxford.

This paper contains the mathematical investigation of the phenomena of peculiar dark bands crossing the prismatic spectrum, when half the pupil of the eye, looking through the prism, is covered by a thin plate of any transparent substance, the edge being turned from the violet towards the red end of the spectrum; and which